

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Environmental Preservation and Conservation Committee

BILL: SB 1438

INTRODUCER: Senator Bullard

SUBJECT: Injection Wells

DATE: March 6, 2009 REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Wiggins	Kiger	EP	Favorable
2.	_____	_____	HR	_____
3.	_____	_____	GA	_____
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
6.	_____	_____	_____	_____

I. Summary:

The bill would provide requirements on the use of backup wells for disposal of treated domestic wastewater in the Florida Keys (Monroe County). It would amend s. 6, ch.99-395, L.O.F., pertaining to sewage requirements in Monroe County. The bill would specify design and operation requirements for backup injection wells for larger domestic wastewater facilities with a design capacity of one million gallons per day or greater. A deep well (with casing set to depth of a least 2,000 feet) is currently required for these larger facilities. The amendment would allow construction of a shallow backup well (casing set to at least 60 feet deep with a total depth of at least 90 feet) to the primary well, provided the water injected into a backup well meets applicable treatment standards and use of the backup well, is limited to no more than 500 hours in any 5-year period.

This bill amends s.6, ch.99-395, L.O.F.

The bill provides an effective date of when the bill becomes a law.

II. Present Situation:

The Department of Environmental Protection's (DEP) Underground Injection Control (UIC) program protects the State of Florida's underground sources of drinking water (USDW) while disposing of appropriately treated fluids via underground injection wells. A USDW is defined as an aquifer that contains a total dissolved solids concentration of less than 10,000 milligrams per liter of water. The UIC program is charged with preventing degradation of the quality of other aquifers adjacent to the injection zone. Subsurface injection, the practice of emplacing fluids

through an injection well, is one of a variety of wastewater disposal or reuse methods used in Florida.¹

The injection wells are required to be constructed, maintained, and operated so that the injected fluid remains in the injection zone, and the unapproved interchange of water between aquifers is prohibited. There are five classes of injection wells. Four of those well classes mainly deal with injecting hazardous and nonhazardous waste and fluids associated with the production of oil and natural gas. Class V injection wells generally inject nonhazardous fluid into or above a USDW. The fluid injected must meet appropriate criteria as determined by the classification of the receiving aquifer. Common types of Class V wells include air conditioning return flow wells, swimming pool drainage wells, storm water drainage wells, lake level control wells, domestic waste wells, and aquifer storage and recovery (ASR) wells. There are more than 8,000 Class V wells in Florida.²

Injection wells do not have a set depth specified in state law or rule. Injection wells are characterized by how they relate to the underground geology, how they are constructed in order to protect ground water, what they may discharge, and other defining criteria. With little land surface area in Monroe County, wastewater facilities have few disposal options. Water discharges are prohibited by law in Monroe County. Further, reuse and other land disposal possibilities are limited. Consequently, injection wells are the only practical option in most cases.

Chapter 99-395, L.O.F., exclusively applies to Monroe County. The law requires that facilities discharging at least 1 million gallons per day of highly treated wastewater have an injection well cased to at least 2,000 feet deep to isolate the injected water from surface waters. Smaller facilities, with a design capacity of less than one million gallons per day, are authorized to use shallow disposal wells (casing set of at least 60 feet deep with a total well depth of at least 90 feet). These wells have reduced requirements because they discharge a smaller volume of treated wastewater. The different requirements are based on the design treatment capacity of the domestic wastewater treatment facility. However, in Monroe County's unique environment which chapter 99-395 was passed to protect, wells for the largest facilities must be cased to at least 2,000 feet deep while wells for other facilities must be at least 90 feet deep, cased to 60 feet.

III. Effect of Proposed Changes:

Section 1. It amends s.6, ch.99-395, L.O.F., to define the circumstances, applicable to Monroe County only, when a backup injection well can be used. Monroe County has limited land surface area so waste disposal options are limited. This change would allow back-up wells for the largest facilities in Monroe County to have to comply with the smaller facility requirements of at least 90 feet deep, cased to 60 feet. The water injected into a backup well would still be required to meet applicable treatment standards and use of the backup well would be limited to no more

¹ www.dep.state.fl.us/water/uic/ (March 6, 2009)

² Ibid.

than 500 hours in any 5 year period. According to DEP, this adjustment is sufficient given their limited use.

Section 2. Provides an effective date of when the bill becomes a law.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

According to DEP's estimates, the utility would not incur the additional construction costs to build a deep backup well and utility customers could potentially have a reduction in their rates.

There are currently no private utilities in the Florida Keys operating disposal wells associated with a wastewater treatment facility with a design capacity of greater than one million gallons per day. However, if a private utility installed or took ownership of such a system, they would benefit from the reduced construction costs. A backup disposal well that is significantly shallower (at 90 feet deep) is much less expensive to construct than deep wells (at >2000 feet deep). The private utility would also benefit from the reduced testing requirements for a shallow well compared to a deep well.

C. Government Sector Impact:

According to DEP's estimates, local governments that own domestic wastewater facilities in the Keys could see savings of more than \$4 million when constructing a backup disposal well. Further, local governments that are owners of domestic wastewater facilities in the Keys could see savings of approximately \$5,000 per year because of reduced testing requirements for a shallow well compared to a deep well.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.
